

2. Obstetrical. Oculo-pupillary symptoms may be present, but are usually absent. A more severe lesion follows breech than head presentations.

3. Intra-vertebral Compression. Usually from pachymeningitis, often tuberculous, tumors, etc. Violent pain often precedes the paralysis for a long time. Later symptoms of pressure on the cord appear.

4. From hereditary syphilis, either of the upper or lower type. They are cured by mercurial treatment, and are due to meningo-myelitis.

5. From extra-vertebral compression. Mode of onset varies according to the nature of the compressing agent. When this is an aneurysm Duval and Guillain consider that the paralysis is not due to simple compression, but to the inflammatory formation around the walls of the aneurysm, and that hence the paralysis may be permanent even if the aneurysm is in process of healing.

6. Apoplectiform Neuritis. The onset is necessarily sudden.

Diagnosis. In infants, syphilitic pseudo-paralysis, which appears some months after birth, osteo-myelitis and infantile paralysis have to be considered.

In adults, the diagnosis of hysterical brachiooplegia may be difficult, since it has been considered that this may occur even when unassociated with anesthesia. Cortical lesions are not likely to be mistaken for those of brachial plexus, and are distinguished by the presence of contracture, exaggerations or reflexes, absence of wasting and of sensory disturbance.

Of spinal disease, acute anterior poliomyelitis, syringomyelia and hematomyelia must be considered; the latter is rarely limited enough to produce only a brachial monoplegia. Sometimes a violent tearing of the roots may give rise to hematomyelia above and below the radicular territory, and then analgesia and thermoanesthesia would be found.

Amyotrophy from joint disease can be excluded by the history and the absence of altered electrical irritability associated with increase in the tendon-jerks.

Prognosis. This varies greatly, according to the violence of trauma.

Destruction of the cells of the ventral horn may follow, and even a limited hemorrhage into the cord. The condition of the electrical reactions gives some indication of the probable duration of the paralysis.

Treatment. Massage, electricity and hydropathy are required. Surgical interference may be necessary. [The deformity produced by paralyzed muscles must be corrected by the use of a sling to support the forearm when the biceps group is paralyzed, or by a light metal splint applied to the anterior surface of the forearm, reaching as far as the end of proximal phalanges and bent backwards to support the hand when the extensors of the wrist and fingers are paralyzed. By thus removing tension from the weakened muscles recovery is largely aided.]

W. B. WARRINGTON.

NEURO-FIBRILS AS DISPLAYED BY THE METHODS OF PROF. RAMON-Y-CAJAL.

L. Azoulay (La Presse Médicale, July, August, September and October, 1904).

Dr. Azoulay's review of Prof. Ramon-y-Cajal's observations shows, apparently, that the presence of a neuro-fibrillar network in the interior of nerve cells has at last been definitely established. The earliest stages of its growth have not been ascertained, but there seems to be little doubt that it commences to grow first in the dendrites, and progresses thence into the interior of the cell body, where it evidently differentiates into a series of primary and secondary fibrils. The former are most numerous in the perinuclear network, and the latter in the more peripheral parts of the cell, though they are found in all parts, in-

tervening between and apparently connecting the primary fibrils together. The network formed by the two sets of fibrils may be distinctly recticular or more or less fascicular, the former being the more primitive and the latter the more advanced condition; but distinctly as it appears, the network is not an unchangeable entity, for it undergoes remarkable alterations associated with the activity and quiescence of the cells. Thus in hibernating animals the fibrils of the intracellular reticulum become fewer and larger, the finer fibrils disappearing, and on the larger remaining fibrils there are numerous spindle-shaped enlargements. Similar appearances are presented by the nerve cells of rabbits in the paralytic stage of hydrophobia. If, however, a hibernating animal is exposed to a temperature which revives it and induces it to pass from a state of lethargy to a state of activity, then the finer fibrils reappear in the intracellular reticulum. It follows, therefore, that the appearance of the reticulum, as demonstrated by the reagents employed, is merely the expression of the condition of activity of the cells at the time of their death and fixation.

JELLIFFE.

SURGICAL TREATMENT OF EPILEPSY. Delegénère (Arch. Prov. de Chir., No. 10, 1904).

This author advocates a novel treatment of epilepsy by ligature of the superior longitudinal sinus just above the torcular Herophili. This method of dealing with epilepsy was suggested to the author by the very good results observed in a case of this disease in which, during an operation for trephining, it was found necessary on account of an accidental wound to apply a ligature around the longitudinal sinus. Regarding an epileptic attack as a clinical syndrome common to several pathological conditions, and holding that the various causative lesions of epilepsy tend in different ways to produce the common result of permanent dilatation of the veins of the external surface of the cerebral hemispheres, Delagénère considers it a logical step to attempt to modify the venous circulation of the cerebral cortex by practicing ligature of the terminal portion of the longitudinal sinus. Under the assumption that distention of the superficial cerebral veins is probably the cause of irritation of the cortical layer of the brain, he would endeavor to overcome this venous distension by an operation analogous in its aim and mode of action to ligature of the upper part of the internal saphena vein for varicosity of the veins of the leg. The object in practicing ligature of the longitudinal sinus would thus be to bring about a collapse of the over-distended veins by which this sinus is supplied with blood. The author describes the different stages of this operation, which he has performed in a single case with good results. The longitudinal sinus is exposed by trephining the cranial vault in the posterior half of a line drawn from the bregma and the external occipital protuberance, at a point about 8 cm. or 9 cm. behind the bregma.

JELLIFFE.